

In re Goffe, 188 USPQ 131 (CCPA 1975)

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(CCPA)
188 USPQ 131

Decided Dec. 18, 1975
No. 75-562
U.S. Court of Customs and Patent Appeals

Headnotes

PATENTS

1. Construction of specification and claims — By specification and drawings — In general (§ 22.251)

It is proper to consult specification to ascertain scope of claims whose language is particularly defined in specification.

2. Claims — Indefinite — In general (§ 20.551)

Construction of specification and claims — Combination claims (§ 22.35)

Specification — Sufficiency of disclosure (§ 62.7)

Whether claim language is definite is determined by examining claims to see whether invention's metes and bounds can be adequately determined from claim language, giving effect to all limitations; mere fact that claims cover large number of possible process steps and materials does not itself make claims indefinite; claims' scope is definite because each limitation recited therein is definite; rejection apparently based on claims' breadth in relation to disclosure's adequacy is 35 U.S.C. 112, paragraph one, rejection rather than one based on indefiniteness.

Particular patents — Imaging System

Goffe, Deformation Imaging System, rejection of claims 1-25, 29-36, 38-53, and 60 reversed.

Case History and Disposition:

Appeal from Patent and Trademark Office Board of Appeals.

Application for patent of William L. Goffe, Serial No. 46,070, filed June 15, 1970, division of Serial No. 695,074, filed Jan. 2, 1968, continuation in part of Serial No. 520,423, filed Jan. 13, 1966. From decision rejecting claims 1-25, 29-36, 38-53, and 60, applicant appeals. Reversed.

Attorneys:

David C. Petre, Rochester, N.Y., for appellant.

Joseph F. Nakamura (Robert D. Edmonds, of counsel) for Commissioner of Patents and Trademarks.

Judge:

Before Markey, Chief Judge, and Rich, Baldwin, Lane, and Miller, Associate Judges.

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Opinion Text

Opinion By:

Lane, Judge.

This appeal is from the decision of the Patent and Trademark Office (PTO) Board of Appeals (board) affirming the rejections of claims 1-60, all the claims in application serial No. 46,070, filed June 15, 1970, for "Deformation Imaging System." ¹ Claims 1-60 were originally on appeal to this court; however, claims 26-28, 37, and 54-59 were withdrawn from appeal by appellant in his brief. Accordingly, this appeal is dismissed with respect to these claims. Claims 1-25, 29-36, 38-53, and 60 remain on appeal. We reverse.

The Invention

Appellant's invention is a process for creating an imaged article. Figures 1-4 illustrate the

details of the invention:

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An imaging member (10) is provided which comprises at least two layers of material (12,13). One of the layers (12) is softenable by any known method (e.g., heat, solvent). Overlying the softenable layer is a fracturable layer (13) (i.e., one that is capable of breaking up into particles). A uniform electrostatic charge is placed on the imaging member as illustrated in Figure 2. The charged imaging member is then exposed, as shown in Figure 3, to an image (18) projected onto the imaging member by a source of radiation, which results in charge relocation on the imaging member corresponding to the projected image. Subsequent softening, illustrated in Figure 4, of layer 12 causes a deformation in both the softenable layer 12 and the fracturable layer 13 due to the electrostatic charge distribution on the imaging member. Deformation of the fracturable layer (13) results in a breakup of the fracturable layer into particles with the particles tending to move from deformation peaks to agglomerate in the deformation valleys.

Claims 1, 5, and 29, illustrate the process and article claimed:

1. An imaging method comprising the steps of:

(a) providing an imaging member comprising a fracturable, laterally relocatable layer overlying a softenable, electrostatically deformable layer; and

(b) imagewise electrostatically deforming said deformable layer, prior to and without [sic] any substantial migration of fracturable, laterally relocatable layer material in depth in said softenable, electrostatically deformable layer, to disrupt and fracture said fracturable layer whereby portions of said fracturable layer laterally relocate with respect to said deformable layer to move from the peaks of the deformations to agglomerate in the pockets of the deformations.

5. An imaging method according to claim 1 wherein before the deforming step said fracturable, laterally relocatable layer is substantially uniformly light absorbing to a significantly different degree when exposed to a given radiation than said softenable, electrostatically deformable layer which is also uniformly light absorbing when exposed to a given radia

tion and where sufficient portions of said fracturable layer laterally relocate upon deformation exposing portions of said deformation layer thereby forming an imaged member with areas of different light absorption in image configuration.

29. An imaged member comprising:

a fracturable, laterally relocatable layer overlying a softenable electrostatically deformable layer, wherein said fracturable laterally relocatable layer itself is not a suspension wherein both layers have substantially uniform thicknesses, except in regions where said deformable layer is wrinkled in image configuration whereat the fracturable layer is rendered relatively thinner in areas corresponding to deformation peaks and relatively thicker in areas corresponding to deformation pockets.

The References

The References relied on are:

Table set at this point is not available. See table in hard copy or call BNA PLUS at 1-800-452-7773 or 202-452-4323.

The Rejections

Claims 1-25, 29-36, 38-53, and 60 were rejected under both the first and second paragraphs of 35 USC 112. Claims 29-31, 35 and 36 were additionally rejected under 35 USC 102 as anticipated by Gunther et al.

The 35 USC 112, first paragraph, rejection was based on the examiner's finding that the language of the claims causes them to have a scope of protection beyond that which is supported by the specification disclosure. In particular, the examiner pointed out that the claims on appeal read broadly on the process steps carried out in a migration imaging technique shown in Goffe. In the examiner's words:

Positive process limitations to differentiate the process of the instant claims and the process of migration imaging must be set forth, otherwise the claims must be considered to be incomplete in not setting forth the parameters that must of necessity be present in order to give the different results shown in the two processes.

The examiner further stated that the "fracturable layer" is recited too broadly in claims 1, 2, 5-22, 29-31, 35, 36, 38-43, 46-50, and 60 because it must exhibit different properties depending on the different imaging techniques used to form the image; and, that the "deformable layer" is recited too broadly in claims 1-21, 29-36, 38-42, 44, and 60 because it must have a resistivity of at least 10 10ohm-cm. to function in the instant process.

The 35 USC 112, second paragraph, rejection was based on the examiner's finding that the language used in the claims is not precise and definite enough to provide a clear-cut indication of the subject matter embraced by the claims. The examiner specifically stated that the phrase "imagewise electrostatically deforming * * * whereby portions of said fracturable layer laterally relocate * * * to agglomerate in the pockets of the deformation":

is considered to be indefinite in that many necessary process steps of different image forming techniques are lumped under this one phrase. The phrase does not precisely define what type of steps are involved in causing the deformation of the layers.

The examiner also considered the term "electrostatically photosensitive" appearing in claims 2, 18, 23, and 31 indefinite because it was not understood what this term encompasses. Claim 5 was found by the examiner to be vague and indefinite:

since no other embodiment than the opaque-transparent one is presented and examples of the parameters and materials necessary to arrive at embodiments using compatible materials showing different absorptivities have not been set forth.

The examiner referred to column 15, lines 37-70 of Gunther et al. in his 35 USC 102 rejection, for a teaching that a layer containing a frosted image may be covered with an ink. The examiner reasoned:

This ink will correspond to the fracturable laterally relocated material of the instant invention. It is submitted that the ink material would tend to agglomerate in the valleys of the frosted image rather than on the peaks.

The examiner adhered to this position when appellant inserted the limitation ² to the fracturable laterally relocatable layer that it "is not a suspension" stating:

Gunther et al. show in col. 15, line 57 that the gelatin-graphite solution is allowed to

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dry for ten seconds, and, further, in lines 67-70 that the inked images may be used as projectable transparencies, which clearly shows that the solution will be completely dry and consist of graphite particles in a gelatin binder and not exist as a suspension.

The Board of Appeals

The board found no error in the decision of the examiner and adopted the reasoning of the examiner as its own, adding several comments. With respect to the 35 USC 112 rejections, the board stated that the claims must define the procedure and otherwise define the article so that they read only on the "relocation" movement described in the specification. It found the claimed process "defined in such vague or broad language as to read on obtaining different [migration] results." The board was unmoved by appellant's arguments that to further differentiate the claimed lateral relocation imaging process over a migration imaging process would require undue

research and injustice to appellant, and stated that appellant need merely recite the steps and conditions of his process which have been described as giving certain results. It went on to further state:

This is not an undue burden, but is the ordinary requirement of section 112 that the specification contain a written description of the invention and of the manner and process of making and using it, in such full, clear, concise and exact terms as to enable any person skilled in the art to which it pertains to make and use the same. The claims should point out and distinctly claim the subject matter which the applicant regards as his invention. We conclude that the claims do not measure up to the standards of this section.

With respect to the 35 USC 102 rejection, the board stated that in view of the broad scope of the claims, the process and articles of the reference meet the limitations of the claims. The board noted ambiguous language in the claims, finding that the article was defined both in terms of its original blank structure and as an imaged member, and inferred that the final imaged article was intended to be covered, in which case the board failed to understand the need for, or the relevance of, the fracturable or relocatable properties of the top layer. The board further expressed doubt that these properties may be attributed to the final article.

Appellant filed with the board a request for reconsideration, accompanied by an affidavit of appellant Goffe on the 35 USC 112 issues. The board reconsidered its position in view of appellant's affidavit but adhered to its original decision.

Opinion

Section 102

[1] We first deal with the 35 USC 102 rejection of claims 29-31, 35 and 36. Claim 29, from which the remaining claims depend, requires, inter alia, a "fracturable, laterally relocatable layer overlying a softenable electrostatically deformable layer, wherein said fracturable laterally relocatable layer itself is not a suspension." Appellant argues that the ink covering the Gunther et al. imaged member does not meet this claim limitation, as alleged by the examiner, particularly emphasizing that the overlayer of ink in Gunther et al. would be a suspension. Since we are confronted in this rejection with claim language which is particularly defined in the specification, we consult the specification to ascertain the scope of these claims. In re Barr, 58 CCPA 1388, 444 F.2d 588, 170 USPQ 330 (1971). Appellant in his specification defines a "fracturable laterally relocatable layer" as:

[A] layer over a softenable, electrostatically deformable layer which *when disrupted* by a frost or relief type wrinkling of the deformable underlayer causes the overlayer [the fracturable layer] *to break up into particles of the size of an image element or less, the particles tending to move* from the deformation peaks to agglomerate in the deformation valleys. [Our emphasis.]

We find nothing in Gunther et al. which suggests that either of their disclosed inks *breaks up* into

particles upon a deformation of the underlayer, with particles tending to move from peaks to valleys. At best the Gunther et al. ink in its wet state would appear to be a continuous medium which flows from peaks to valleys but which does not break up into particles. Similarly, we find nothing in Gunther et al. which suggests this property of their inks when allowed to dry. We, therefore, fail to find the claimed "fracturable, laterally relocatable layer" called for in all the rejected article claims. Accordingly, we reverse the decision of the board on this rejection.

Section 112

We next consider the rejection of all claims under 35 USC 112, second paragraph. Appellant contends that the limitations "fracturable, laterally

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relocatable layer" and "imagewise electrostatically deforming" which appear in the sole independent method claim 1 are limitations comprising a particular and distinctly claimed step on a distinctly claimed imaging member which is not provided for in the related migration imaging techniques as asserted by the examiner. Appellant also argues that even if the limitation "imagewise electrostatically deforming" is ignored by the Patent and Trademark Office merely because it is a broad term, all the process claims clearly define the unique, surprising and unexpected lateral relocation result. Appellant asserts that he should be allowed to claim his invention by this result since he cannot more definitely claim his invention. Appellant, additionally, contends that the specific claim phrases and terms which the examiner found objectionable under 35 USC 112, second paragraph, do particularly point out and distinctly claim the invention as required by that paragraph.

It appears to us that the essence of the examiner's objection to the claim language centers around the fact that many different process steps and materials which may also be used in other imaging systems are embraced by the broad language of the claims in issue.

[2] To determine whether the claim language is definite we must examine the claims to see whether the metes and bounds of the present invention can be adequately determined from the claim language. In this examination of the claims before us we must give effect to all limitations. In re Geerdes, 491 F.2d 1260, 180 USPQ 789 (CCPA 1974); In re Wilder, 57 CCPA 1314, 429 F.2d 447, 166 USPQ 545 (1970). Upon examination, we find nothing indefinite in the language criticized by the examiner, namely, "imagewise electrostatically deforming * * * whereby portions of said fracturable layer laterally relocate * * * to agglomerate in the pockets of the deformation." In our view, although the overlayer and process steps are broadly recited, we find that those skilled in the art would have no trouble in ascertaining whether any particular combination of overlayer materials and process steps falling within the broadly recited "fracturable layer" and "imagewise electrostatically deforming" process steps achieved the claimed lateral relocation result. In re Miller, 58 CCPA 1182, 441 F.2d 689, 169 USPQ 597 (1971). We find the criticized language to be precise and to clearly describe the fracturing of the overlayer with subsequent movement of particles of the fractured layer from the deformation

peaks to the deformation valleys. The mere fact that the claims cover a large number of possible process steps and imaging member materials does not in and of itself make the claims indefinite. In re Skoll, 523 F.2d 1392, 187 USPQ 481 (CCPA 1975). The scope of the claims is definite because each of the limitations recited therein is definite. See In re Wakefield, 57 CCPA 959, 422 F.2d 897, 164 USPQ 636 (1970). The examiner's reasoning on why he considered this language to be indefinite appears to be based on the breadth of the claims in relation to the adequacy of the disclosure, a section 112, paragraph one, rejection, rather than a rejection based on indefiniteness. In re Borkowski, 57 CCPA 946, 422 F.2d 904, 164 USPQ 642 (1970).

The examiner also considered the phrase "electrostatically photosensitive" indefinite since "it is not understood exactly what this term is supposed to encompass." It would appear to us, however, that the term is amply described in the specification and leaves no doubt over its meaning to those skilled in the art. The description in the specification of placing an image on the imaging member states:

The surface electrical charges deposited in the charging step of Fig. 2 are depicted as having moved into photosensitive layer 13 in the imagewise exposed areas. [Our emphasis.]

The specification further states:

*It is thought that deformation occurs in the light struck areas when the following conditions are met: exposure of layer 13 to the optical image causes charge to selectively move to the interface of layers 13 and 12 * * *. [Our emphasis.]*

We think it clear from both a common sense reading of the term and from appellant's specification that an "electrostatically photosensitive" layer is one in which the electrostatic charge distribution established in or on the layer is altered by exposure of the layer to light. We fail to see how a person skilled in the art would not know whether a particular material was "electrostatically photosensitive."

We similarly fail to find any indefinite language in claim 5. The claimed relationship of light absorption between the two layers of the imaging member is quite clear. There is no problem in determining the metes and bounds of this claim.

We note that most, if not all, of the examiner's reasons for rejecting all claims on appeal under 35 USC 112, second paragraph, relate to language used in the process claims only. We fail to find any particular reasons given by the examiner why

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article claims 29-36, and 60 are not in compliance with the second paragraph of section 112. In any event, we have reviewed these article claims and have found them definite in scope, and, therefore, in compliance with the second paragraph of section 112. Accordingly, we reverse the decision of the board rejecting all claims under 35 USC 112, second paragraph.

We now reach the 35 USC 112, first paragraph, rejection. As stated, *supra*, under "*The Rejections*", the examiner found the claims on appeal to have a scope of protection beyond that which is justified by the specification, since the claims read broadly on the process steps carried out in the related migration imaging technique, in which a different result is obtained from that obtained in the instant invention through the use of similar processing steps and imaging members. Appellant argues that his claims are limited solely to lateral relocation imaging techniques. He also contends that the specification's sixteen detailed examples support the breadth of those claims by enabling one of ordinary skill in the art to obtain the lateral relocation imaged member result recited in the process claims. He further contends that the phrases "fracturable, laterally relocatable layer" and "deformable layer," which the examiner considered too broad, are supported by the sixteen detailed examples.

We find that the claims are limited to those combinations of materials and processes which obtain a relocation result by virtue of the language of the last seven lines of claim 1. We do not find that the claims cover the related migration imaging technique, since to do so would require us to ignore claim limitations. In *re Geerdes, supra*. Each claim on appeal recites a particular result to be obtained by broadly recited process steps. It would appear from the record before us that appellant's contribution to the art was in achieving the relocatable result on an imaging member using particular combinations of conventional materials and process parameters. However, as the sixteen detailed specification examples illustrate, there is a wide latitude in the materials and process parameters which can be combined to achieve the relocatable result. Appellant has broadly drawn his claims to correspond to the broad nature of his disclosure. We, therefore, think that in this case appellant has done all that section 112, first paragraph, requires. Accordingly, we also reverse the decision of the board affirming the rejection of all claims under the first paragraph of 35 USC 112.

The decision of the board is reversed.

Footnotes

Footnote 1. A division of serial No. 695,074, filed January 2, 1968, which was in turn a continuation-in-part of serial No. 520,423, filed January 13, 1966.

Footnote 2. Amendment filed February 9, 1973.

- End of Case -

